REMARKS

The present application is a Rule 114 Request for Continued Examination (RCE) of parent application Serial No. 09/369,090, filed August 5, 1999.

In its decision mailed on January 20, 2006, the Board of Patent Appeals and Interferences sustained the prior art rejections of claims 1, 2, 4, 6, 7 and 9 based on Katsuma and reversed the prior art rejections of claims 1, 4, 6, 7 and 9 based on Miyazawa.

By the present RCE, independent claim 1 has been amended to further patentably distinguish from Katsuma. Claim 9 has been amended to conform the preamble to the title of the invention. New claims 34 and 35 have been added to provide a fuller scope of coverage.

Amended independent claim 1 is directed to an ultrasonic motor. With reference to the embodiment shown in Fig. 1, amended independent claim 1 requires a movable member 12a disposed to undergo movement in response to a drive force. A substrate 7 has a conductor pattern 7a-7e for conveying a drive signal from a drive circuit. A piezoelectric vibrator 10 is provided directly on the substrate 7 for undergoing oscillating movement in response to the drive signal so as to contact the movable member 12a and generate the drive force to drive the movable member 12a. A support member 11 is provided

on the substrate 7 for mechanically fixedly supporting the piezoelectric vibrator 10 at a point corresponding to a node of vibration of the piezoelectric vibrator on the substrate 7 and transmitting the drive signal from the conductor pattern 7a-7e to electrodes of the piezoelectric vibrator 10 so that no conductor wires extend from the substrate 7 to connect the drive circuit and the piezoelectric vibrator 10. Preferably, the support member 11 contacts and supports the piezoelectric vibrator 10 only in a region thereof corresponding to the node of vibration of the piezoelectric vibrator 10.

By the foregoing construction, the provision of the piezoelectric vibrator directly on the substrate makes it possible to substantially reduce the size and part count of the ultrasonic motor and to reduce the loss associated with the use of multiple components as described in the specification for conventional ultrasonic motors. An additional reduction in loss is achieved by providing the support member for supporting the piezoelectric vibrator only in a region thereof corresponding to a node of vibration thereof so that vibration loss is further reduced.

Applicants respectfully submit that amended independent claim 1 patentably distinguishes from the prior art of record. For example, Katsuma discloses a motor with a movable member 9 which undergoes movement in response to a

drive force applied at patterned electrodes which form part of a wiring plate or substrate 51 (Fig. 7). While provided on the substrate 51, the piezoelectric vibrator 2 is not provided "directly" on the substrate, as required by amended independent claim 1. Stated otherwise, there is no "direct" connection between the piezoelectric vibrator 2 and the substrate 51 in Katsuma. As recognized by the Examiner during prosecution of the parent case and by the Board in the January 20 decision, the piezoelectric vibrator 2 in Katsuma is separated by intervening elements 3, 4 and 50 from the substrate 51 and, therefore, is not provided directly on the substrate 51.

Claims 2, 4, 6, 7, 9 and newly added claim 34 depend on and contain all of the limitations of amended independent claim 1 and, therefore, distinguish from the prior art of record at least in the same manner as amended claim 1.

Moreover, there is a separate ground for patentability for dependent claim 34 which includes the additional limitation that the support member contacts and supports the piezoelectric vibrator only in a region thereof corresponding to the node of vibration of the piezoelectric vibrator. As recognized by the Board in the January 20 decision, no corresponding structure is disclosed or suggested by Katsuma.

New independent claim 34 is directed to an ultrasonic motor and provides a different scope of coverage than amended independent claim 1. Claim 34 requires a support member provided on the substrate for mechanically fixedly supporting the piezoelectric vibrator on the substrate and transmitting the drive signal from the conductor pattern to electrodes of the piezoelectric vibrator so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator, the support member contacting and supporting the piezoelectric vibrator only in a region thereof corresponding to a node of vibration of the piezoelectric vibrator. Again, no corresponding structure is disclosed or suggested by the prior art of record.

In view of the foregoing amendments and discussion, the application is now believed to be in condition for allowance. Accordingly, favorable reconsideration and allowance of the claims are most respectfully requested.

Respectfully submitted,

ADAMS & WILKS
Attorneys for Applicants

By: _____
Bruce L. Adams
Reg. No. 25,386

17 Battery Place
Suite 1231
New York, NY 10004
(212) 809-3700

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Debra Buonincontri
Name

Debra Buonincontri
Signature

MARCH 20, 2006
Date